

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

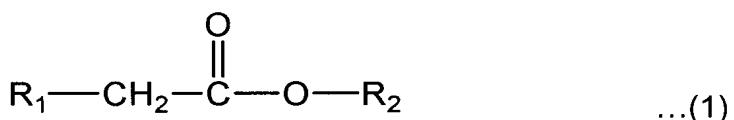
LISTING OF CLAIMS:

1. (Currently Amended) A non-aqueous electrolytic solution comprising:

a lithium salt;

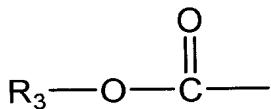
at least one organic solvent selected from the group consisting of diethyleneglycol dimethylether ($\text{CH}_3(\text{OCH}_2\text{CH}_2)_2\text{OCH}_3$), diethyleneglycol diethylether ($\text{C}_2\text{H}_5(\text{OCH}_2\text{CH}_2)_2\text{OC}_2\text{H}_5$), triethyleneglycol dimethylether ($\text{CH}_3(\text{OCH}_2\text{CH}_2)_3\text{OCH}_3$), triethyleneglycol diethylether ($\text{C}_2\text{H}_5(\text{OCH}_2\text{CH}_2)_3\text{OC}_2\text{H}_5$), 1,3-dioxolane, 4,5-diethyl-dioxolane, 4,5-dimethyl-dioxolane, 4-methyl-1,3-dioxolane, and 4-ethyl-1,3-dioxolane; and

at least one of compounds having formula (1) below:



wherein 0.1-5 parts by weight of the at least one of compounds having formula (1) is present with respect to 100 parts by weight of said organic solvent, and
where R_1 is selected from the group consisting of a hydrogen atom, a halogen atom, a hydroxy group, a substituted or unsubstituted $\text{C}_1\text{-C}_{20}$ alkyl group, a substituted or unsubstituted $\text{C}_1\text{-C}_{20}$ alkoxy group, a substituted or unsubstituted $\text{C}_1\text{-C}_{20}$ alkenyl group, a substituted or unsubstituted $\text{C}_6\text{-C}_{30}$ aryl group, a substituted or

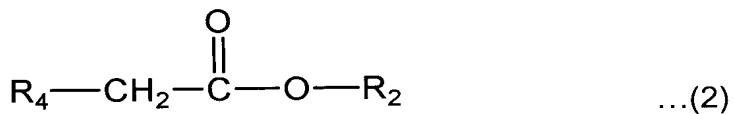
unsubstituted C₆-C₃₀ aryloxy group, a substituted or unsubstituted C₂-C₃₀ heteroaryl group, a substituted or unsubstituted C₂-C₃₀ heteroaryloxy group, and



where R₃ is selected from the group consisting of a hydrogen atom, a halogen atom, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryl group;
and R₂ is selected from the group consisting of a hydrogen atom, a halogen atom, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryl group.

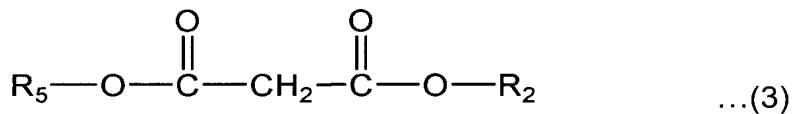
2. (Canceled).

3. (Original) The non-aqueous electrolytic solution of claim 1, wherein the at least one of the compounds of said formula (1) is one of a compound of formula (2) below, a compound of formula (3) below, and a mixture of the forgoing compounds:



where R₄ is selected from the group consisting of a hydrogen atom, a halogen atom, a hydroxy group, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or

unsubstituted C₁-C₂₀ alkoxy group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, a substituted or unsubstituted C₆-C₃₀ aryloxy group, a substituted or unsubstituted C₂-C₃₀ heteroaryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryloxy group; and R₂ is selected from the group consisting of a hydrogen atom, a halogen atom, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryl group, and



where R₅ is selected from the group consisting of a hydrogen atom, a halogen atom, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryl group; and R₂ is selected from the group consisting of a hydrogen atom, a halogen atom, a substituted or unsubstituted C₁-C₂₀ alkyl group, a substituted or unsubstituted C₁-C₂₀ alkenyl group, a substituted or unsubstituted C₆-C₃₀ aryl group, and a substituted or unsubstituted C₂-C₃₀ heteroaryl group.

4. (Original) The non-aqueous electrolytic solution of claim 3, wherein the compound of said formula (2) is one of dimethyl acetate, methylethyl acetate, methylbutyl acetate, diethyl acetate, ethylmethyl acetate, ethylbutyl acetate, dibutyl acetate, butylethyl acetate, and butylmethyl acetate.

5. (Original) The non-aqueous electrolytic solution of claim 3, wherein the compound of said formula (3) is one of dimethyl malonate, methylethyl malonate, methylbutyl malonate, diethyl malonate, ethylmethyl malonate, ethylbutyl malonate, dibutyl malonate, butylethyl malonate, and butylmethyl malonate.

6. (Canceled).

7. (Previously Presented) The non-aqueous electrolytic solution of claim 1, wherein the organic solvent is a polyglyme and is at least one selected from the group consisting of diethyleneglycol dimethylether ($\text{CH}_3(\text{OCH}_2\text{CH}_2)_2\text{OCH}_3$), diethyleneglycol diethylether ($\text{C}_2\text{H}_5(\text{OCH}_2\text{CH}_2)_2\text{OC}_2\text{H}_5$), triethyleneglycol dimethylether ($\text{CH}_3(\text{OCH}_2\text{CH}_2)_3\text{OCH}_3$), and triethyleneglycol diethylether ($\text{C}_2\text{H}_5(\text{OCH}_2\text{CH}_2)_3\text{OC}_2\text{H}_5$).

8. (Previously Presented) The non-aqueous electrolytic solution of claim 1, wherein the organic solvent is a dioxolane and is at least one selected from the group consisting of 1,3-dioxolane, 4,5-diethyl-dioxolane, 4,5-dimethyl-dioxolane, 4-methyl-1,3-dioxolane, and 4-ethyl-1,3-dioxolane.

9. (Canceled).

10. (Original) The non-aqueous electrolytic solution of claim 1, wherein the concentration of the lithium salt is in a range of 0.5-2.0M.

11. (Canceled).

12. (Currently Amended) The lithium battery of claim [11]14, wherein the cathode is made of at least one selected from the group consisting of a lithium composite oxide, a simple substance sulfur, kasolite containing dissolved Li_2S_n where $n \geq 1$, organo-sulfur, and a carbon-sulfur composite polymer expressed as $(\text{C}_2\text{S}_x)_y$ where x ranges from 2.5 to 20 and $y \geq 2$.

13. (Currently Amended) The lithium battery of claim [11]14, wherein the anode is one of a lithium metal electrode, a lithium-metal alloy electrode, and a lithium-inert sulfur composite electrode.

14. (Currently Amended) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim [2] 1.

15. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim 3.

16. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim 4.

17. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim 5.

18. (Canceled).

19. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and

the non-aqueous electrolytic solution of claim 7.

20. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim 8.

21. (Canceled).

22. (Original) A lithium battery comprising:
a cathode;
an anode;
a separator interposed between the cathode and the anode; and
the non-aqueous electrolytic solution of claim 10.